

REMARKS

Applicants have amended Claims 8 and 21-26. Support for the amendment can be found generally throughout the text, specifically at page 27, lines 1-13. Applicants submit no new matter has been added by the present amendment.

Claim Rejection - 35 U.S.C. § 112, First Paragraph

Claims 8, 10-18 and 21-26 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Applicants have amended the Claims to be directed to the "mean molar mass M_n ". As discussed above, the present amendment is supported by Specification, see for example, Page 24 and Examples 7 and 8 (which disclose polymerization of polymers with mean molar masses of 2887 kg/mol and 2244 kg/mol) and Claims 21 and 22 as originally filed.

Further, Applicants submit the amendment directed to "mean molar masses" does not introduce new matter with regard to the claimed polymers. As noted on Page 28, third paragraph, the catalyst of the present invention makes it possible to achieve defect-free growth of the polymer chain to extremely high molar masses. Further, in the following paragraph, it is disclosed that the high molar masses applies to elastomeric homopolymers and copolymers. Accordingly, the pending Specification discloses not only elastomers with high molar masses can be obtained according to the claimed process, but also other polymers, for example only, homopolymers based on ethylene, propylene or mixtures of different olefins. Based, at least on the information above, Applicants submit the pending Claims do not contain new matter and accordingly, Applicants request withdrawal of this ground of rejection.

Claims Rejection - 35 U.S.C., Second Paragraph

Claims 1, 10-18 and 21-26 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully

traverse this ground of rejection and submit the amended Claims are within the requirements of 35 U.S.C. § 112, second paragraph as noted below.

Claims 8, 21 and 22

The pending Claims have been amended to be directed to a "mean molar mass" thereby addressing the rejection to specify the molar mass is an average molar mass.

Claims 23-26

The pending Claims have been amended to provide antecedent basis for the term elastomer.

Claim 24

The pending Claims have been amended to include the complete description of the elastomers.

Claim 26

Applicants submit Claim 26 is directed to elastomers having bimodal or multimodal distribution of the molar masses as illustrated in Figure 1 and Examples 25-27, Applicants submit the mean molar mass is within the claimed range. Further, Applicants have corrected the typographical error noted in Claim 26.

Based at least on the amendments and remarks above, Applicants submit the pending Claims meet the requirements of 35 U.S.C. § 112, second paragraph and accordingly request withdrawal of this ground of rejection.

Claim Rejection - 35 U.S.C. § 103(a)

Claims 8, 10-18 and 21-26 again stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ostoja-Starzewski, et al. (U.S. Patent No. 6,353,064). Applicants respectfully traverse this ground of rejection.

Applicants submit that "in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claims limitations. The teachings or suggestions to make

the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure." See MPEP § 2142, citing In re Vaeck, 947 F.2d 488, 20 USPQ 2d. 1438 (Fed. Cir. 1991).

Applicants respectfully submit Ostoja-Starzewski, et al. does not render the present invention obvious. The present invention is directed to a process for the homopolymerization or copolymerization of one or more olefin, cycloolefin, isoolefin, alkynes or diolefin monomers comprising the step of admixing one or more monomer in the presence of at least one transition metal compound having at least two ligands and at least one donor-acceptor interaction between the ligands, wherein at least one ligand is a fluorenyl ligand and the transition metal compound has at least one alkyl or aryl group on at least one acceptor atom; and optionally one or more co-catalyst, wherein the process is carried out at a temperature from about -60 to about +250° C, wherein the process produces polymers having a mean molar mass M_n greater than 500 kg/mol.

As noted on page 3, according to the present invention, it is possible to provide transition metal compounds which can be used for the polymerization of olefins to give polymers **having high molar masses**. And Applicants submit such high molar masses can only be obtained when the polymerization process is carried out in the presence of special transition metal compound having special ligands and using a transition metal compound with at least one alkyl- or aryl- group on at least one acceptor atom as presently claimed. Ostoja-Starzewski, et al. discloses supported catalysts with a donor-acceptor interaction. And as illustrated in a comparison of Ostoja-Starzewski, et al. Example 1 (polymerization of ethen) and Examples 7 and 8 (polymerization of ethen) the mass value in the present invention is greater than 500 kg/mol (actually, 3887 and 2244 kg/mol respectively), compared to 402 kg/mol in Ostoja-Starzewski, et al. As evidenced by the teaching of Ostoja-Starzewski, et al., there is no suggestion or motivation in Ostoja-Starzewski, et al. to use a special catalyst with the specific substitution patterns as claimed to provide polymers with a high mass.

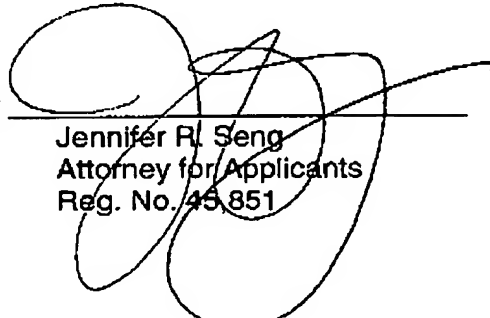
Applicants challenge and traverse the assertion that one skilled in the art would have employed Ostoja-Starzewski, et al.'s teaching to conduct olefin polymerization with the "replacements" identified in the Office Action.

Second, Applicants traverse the Examiners argument that an activator such as alumoxane obviously increases the molecular weight of polyolefins. As illustrated in Appendix 1, alumoxane (MAO) gives rise to lower molecular masses of the copolymers (see the Abstract and Table 1 and Figure 1).

Accordingly, Applicants submit Ostoja-Starzewski, et al. fails to render the present invention obvious and requests withdrawal of this ground of rejection.

Respectfully submitted,

By



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